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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,845	07/14/2003	John W. Chianis	A98103/03104UTL	4336
7590 07/21/2004			EXAMINER	
ROBERT W. STROZIER			LEE, JONG SUK	
P.O. BOX 429			ART UNIT	
BELLAIRE, TX 77402-0429			PAPER NUMBER	
			3673	

DATE MAILED: 07/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/618,845

**Applicant(s)**

CHIANIS ET AL.

**Examiner**

Jong-Suk (James) Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because of the phrase, " which provides reduced installation and/or operational cost associated with the installation and operation of an extended-base tension leg platform" in lines 1-3. The abstract should not refer to purported merits or speculative applications of the invention. Correction is required.

### *Claim Objections*

3. Claims 13, 21 and 25 are objected to because of the following informalities:

Claim 13, line 8: "deballated" should be -- deballasting --.

Claim 21, line 17: "deballated" should be -- deballasting --.

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Claim 25, line 17: "deballated" should be -- deballasting --.

Claim 25, line 17: period should be inserted after "the tendons".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1: The limitation, "where the LMS is designed to reduce installation and/or operation costs and/or to provide installation and/or operation performance benefit" in lines 3-4 is improper because it is purported merits and speculative application of the invention. It must be deleted.

Re claim 7: The limitation, "where the LMS is designed to reduce installation and/or operation costs and/or to provide installation and/or operation performance benefit" in lines 4-5 is improper because it is purported merits and speculative application of the invention. It must be deleted.

Claims 2-6 and 8-12 are dependent upon claim 1 and 7, respectively.

Appropriate correction is required.

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*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5 and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lohr et al (US 5,159,891).

Lohr et al discloses a backdown buoy-type mooring for a tension leg/spar platform (10), comprising of a lateral mooring system having a plurality of catenary mooring lines (22, 40, 42) anchored to a seabed and attached platform and where the system can be attached to the platform prior to, or after tendon (21) installations as depicted in Figs. 1 and 5, the mooring lines are anchored to the seabed in a spaced apart configuration (see Fig. 4) surrounding an installation site of the platform, including buoys (23, 24, 42, 43) adjusting the vertical component of the mooring lines forces acting on the platform and attached to the platform in a pattern to impart on the platform a force in any desired direction and directed primarily parallel to a surface of the sea due to the buoys on the mooring lines (col.3, lines 32-39) (see Figs. 1-9; col.2, lines 62-68; col.3, lines 1-68; col.4, lines 1-24).

8. Claims 1, 6, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by European Patent Application (EP 357,269).

European Patent Application discloses a method and apparatus to stabilize an extended base (24) tension leg platforms (20) comprising of a lateral mooring system having a plurality of

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catenary mooring lines (46) with buoys (48), the system can be attached to the platform after tendon installation (see Figs. 1; col.3, lines 18-44).

9. Claims 13 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Danazcko et al (US 4,913,238).

Danazcko discloses a floating /tension production system including a method for installing a tension-anchored offshore platform (2) comprising the steps of positioning/ transporting a platform near a desired off-shore site or location; attaching a plurality of seabed anchored lateral mooring lines (10) to the platform; adjusting lengths of the mooring lines to position and hold the platform on station over the site; ballasting the platform and attaching the pre-installed tendons to tendon connectors a base of the platform; and deballasting the platform to tension the tendons; and drilling the well (see Figs. 7A-E; col.3, lines 51-68; col.4, lines 1-66; col.8, lines 1-38).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 14-16 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danazcko et al in view of Pangalila (US 3,580,207). The teachings of Danazcko et al have been discussed above.

However, Danacko et al fails to disclose or fairly suggest the control of the mooring lines with the periodical or continuous check. Pangalila discloses a method and means for mooring and controlling the mooring lines comprising of continuously or periodically receiving force data from tension sensors (42, 44) and direction sensor (50) attached to the tendons and the mooring lines; continuously or periodically calculating a net force acting on the platform from the force data at information station (46); and continuously or periodically adjusting the lengths of the mooring lines by motors (34, 40) in response to the calculated force acting on the platform to maintain the platform in a substantially zero-force condition (see figs. 1-3; col.2, lines 30-75; col.3, lines 1-70; col.4, lines 1-23).

Therefore, in view of Pangalila, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to add the control system to the tension leg platform in order to provide the strength capabilities of the mooring lines.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danazcko et al in view of Biewer (US 3,837,309). The teachings of Danazcko et al have been discussed above.

However, Danacko et al fails to disclose or fairly suggest a plurality of temporary stabilization modules being attached to platform. Biewer discloses a floating offshore device

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comprising of a plurality of stabilization modules (26) being attached to the offshore platform (20) (see Figs. 1-3; col.3, lines 4-52).

Therefore, in view of Biewer, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to add the stabilization modules to Danazcko et al's platform in order to provide better control for the platform.

13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danazcko et al in view of Goldsmith (US 4,352,599). The teachings of Danazcko et al have been discussed above.

However, Danacko et al fails to disclose or fairly suggest the tendon being stabbed into the anchor and lockingly engaged to the anchor connector and the tendon connector. Goldsmith discloses a tension leg platform comprising a tendon (30) being stabbed into a tendon anchor by way of a tendon connector (102) as depicted in Figs. 1 and 10 (see col.3, lines 47-68; col.9, lines 33-64).

Therefore, in view of Goldsmith, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to replace the tendon's distal end with the tendon connector in order for permanently mooring the tension leg platform.

14. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danazcko et al. as modified by Biewer, as applied to claim 17, and further in view of Pangalila. The teachings of Danazcko et al modified by Biewer have been discussed above.

However, the teachings of Danacko et al modified by Biewer fails to disclose or fairly suggest the control of the mooring lines with the periodical or continuous check. Pangalila

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discloses a method and means for mooring and controlling the mooring lines comprising of continuously or periodically receiving force data from tension sensors (42, 44) and direction sensor (50) attached to the tendons and the mooring lines; continuously or periodically calculating a net force acting on the platform from the force data at information station (46); and continuously or periodically adjusting the lengths of the mooring lines by motors (34, 40) in response to the calculated force acting on the platform to maintain the platform in a substantially zero-force condition (see figs. 1-3; col.2, lines 30-75; col.3, lines 1-70; col.4, lines 1-23).

Therefore, in view of Pangalila, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to further modify the mooring system of Danazcko et al as modified by Biewer by adding the control system to the tension leg platform in order to provide the strength capabilities of the mooring lines.

15. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danazcko et al. as modified by Goldsmith, as applied to claim 21, and further in view of Pangalila. The teachings of Danazcko et al modified by Goldsmith have been discussed above.

However, the teachings of Danacko et al modified by Goldsmith fails to disclose or fairly suggest the control of the mooring lines with the periodical or continuous check. Pangalila discloses a method and means for mooring and controlling the mooring lines comprising of continuously or periodically receiving force data from tension sensors (42, 44) and direction sensor (50) attached to the tendons and the mooring lines; continuously or periodically calculating a net force acting on the platform from the force data at information station (46); and continuously or periodically adjusting the lengths of the mooring lines by motors (34, 40) in

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response to the calculated force acting on the platform to maintain the platform in a substantially zero-force condition (see figs. 1-3; col.2, lines 30-75; col.3, lines 1-70; col.4, lines 1-23).

Therefore, in view of Pangalila, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to further modify the mooring system of Danazcko et al as modified by Goldsmith by adding the control system to the tension leg platform in order to provide the strength capabilities of the mooring lines.

### *Conclusion*

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited disclose an adjustable mooring system, a position correction system of floating bodies and a floating production and a storage facility.

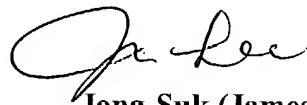
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The examiner can normally be reached on 6:30 am to 3:00 pm, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Lee /jjl  
July 16, 2004



**Jong-Suk (James) Lee**  
**Primary Examiner**  
**Art Unit 3673**